

Title (en)

Method and apparatus for controlling pilot fuel injection to minimize NOx and HC emissions

Title (de)

Verfahren und Vorrichtung zur Steuerung der Voreinspritzung, um NOx- und HC-Emissionen zu minimieren

Title (fr)

Procédé et dispositif de commande d'une injection pilote pour minimiser les émissions de NOx et de HC

Publication

EP 1559887 A3 20061004 (EN)

Application

EP 05001374 A 20050125

Priority

US 76580304 A 20040127

Abstract (en)

[origin: EP1559887A2] The present invention provides a system that controls the amount and timing of pilot fuel injection to obtain minimum NOx and UHC emissions. The system senses if combustion occurs, when combustion occurs, and/or the quality of combustion in the combustion chamber of each cylinder of the gaseous fuel engine and adjusts the amount and/or timing of the pilot fuel injected. The minimum amount of pilot fuel needed to ignite gaseous fuel in a combustion chamber is determined and injected into the prechamber or the combustion chamber of the engine. The actual start of combustion location is determined and the injection timing is adjusted if the start of combustion location is not approximately equal to a desired location. The amount of pilot fuel or injection timing is adjusted if a knock or a misfire has occurred or if the combustion quality measure is not approximately equal to a desired quality measure.

IPC 8 full level

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Citation (search report)

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